S&P Global
Ratings

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New York City
New York City Industrial Development Agency; Appropriations; General Obligation; Joint Criteria; Liquidity Facility; Moral Obligation; Sales Tax

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Credit Profile		
US$824.07 mil GO bnds fiscal 2019 tax-exempt bnds ser E due 08/01/2035		
Long Term Rating	AA/Stable	New
US$90.175 mil GO bnds fiscal 2019 tax-exempt bnds ser F-1 due 08/01/2035		
Long Term Rating	AA/Stable	New
US$71.89 mil GO bnds fiscal 2019 taxable bnds ser F-2 due 08/01/2035		
Long Term Rating	AA/Stable	New
US$32.800 mil spl rev rfdg bnds fixed rt fiscal (City of New York) (New York City Nyse) ser 2019 A due 05/01/2028		
Long Term Rating	AA-/Stable	New
New York City GO		
Long Term Rating	AA/Stable	Affirmed
Hudson Yards Infrastructure Corp., New York		
New York City, New York		
Hudson Yards Infrastructure Corp. (New York City) APPROP		
Long Term Rating	AA-/Stable	Affirmed

Rationale

S&P Global Ratings assigned its 'AA' long-term rating to New York City's approximately $986.1 million of fixed-rate general obligation (GO) bonds, composed of approximately $824.1 million tax-exempt fiscal 2019 series E, approximately $90.20 million tax-exempt series F-1, and about $71.9 million taxable series F-2 GO bonds. At the same time, S&P Global Ratings assigned its 'AA-' rating to the New York City Industrial Development Authority's (IDA's) 2019 series A special revenue refunding bonds. We also affirmed our 'AA' underlying ratings on all series of the city's GO debt outstanding, our 'AA-' underlying rating on all of the city's appropriation debt outstanding except the Hudson Yards Infrastructure Corp.'s (HYIC) second indenture bonds, and our 'A+' underlying rating on the city's moral obligation debt outstanding and the HYIC's second indenture bonds. Finally, S&P Global Ratings affirmed its ratings on various issuances where the short-term ratings are based on the liquidity support provided by various financial institutions, as well as its long-term ratings that are based on joint support. The outlook on all ratings is stable.

The affirmation of the long-term rating incorporates our view on recent events affecting the city's economic and financial profile, including the decision by Amazon not to locate a second headquarters within city limits, the release of the city's preliminary 2020 budget and five-year financial plan, and recently announced spending initiatives, most notably the NYC Care program. The city's economy has experienced healthy year-over-year growth in both market values and aggregate income, and despite Amazon's decision not to locate HQ2 in New York City, we believe steady growth will continue amid the expansionary national trend, expanding the city's economic base, the largest among municipalities in the country.

The city has harnessed economic growth in the form of robust revenue growth, further bolstered by its practice of generally conservative budgeting for its main tax revenue drivers. In particular, property, sales, and business income taxes have exceeded budget in recent years, and are expected to continue to do so in fiscal 2019. Personal income taxes (PIT), which experienced inflated estimated payments in 2018 associated with federal tax reform, were budgeted to decline by 7.4% and the city's preliminary budget is about in-line with the initial projection, with PIT expected to experience a 7% year-over-year decline. On net, property tax revenues are expected to experience positive variance of 6.3% year over year, while non-property tax revenues are expected to come in just under 1% year over year, inclusive of the PIT decline. On the expenditure side, the city projects negative variance associated with labor contract settlements and new programmatic costs, resulting in the city's first "program to eliminate the gap" (PEG) under the current administration, in addition to the "Citywide Savings Plan," a savings that in the past have been fueled by debt service savings and reestimates. The PEG requires savings initiatives across agencies expected to yield $750 million.

The preliminary budget, the first where fiscal 2023 projections are available, anticipates modest outyear gaps between 3% and 4% of revenues, which fall to between 1.5% and 2.5% of revenues net of contingency line items for the city's stabilization reserve and capital reserve. We believe these figures are manageable, particularly when compared to historical projected gaps, and the city's conservative budgeting for revenues and recent history of generating recurring savings, particularly for debt service, will allow it to maintain balance over the outlook period.

The long-term rating on the series 2019A New York City IDA refunding bonds is based on our view of the relationship with the obligor, New York City. The bonds are secured by the city's payment obligation under the New York State Exchange facility financing agreement, which is subject to annual appropriation. The mayor includes a request for appropriation in the budget annually, and we understand the obligation associated with the issue is included as a lump sum with other city lease payments, which we believe is notable. Funds have been regularly budgeted for and are made available out of the city's general fund.

We understand proceeds from the fiscal 2019 series E, F-1, and F-2 bonds will be used for refunding purposes, and proceeds from the IDA bonds will be used to refund 2009A bonds outstanding.

New York City's faith, credit, and unlimited ad valorem pledge secure the GO bonds outstanding. The Dormitory Authority of the State of New York (DASNY) and Educational Construction Fund (ECF) lease revenue bonds, secured by rental payments made to DASNY and ECF, are subject to annual appropriation by the city. These bonds are secured by lease rental payments the city, as lessee, makes to the authority and ECF, as lessor. The city's industrial development agency series 2004B and 2009A bonds are secured by the city's payment obligation under the financing agreement, subject to annual appropriation. We rate the city's appropriation-backed obligations one notch lower than New York City's general creditworthiness, reflected in the GO rating, to account for the risk of non-appropriation associated with the lease payments and under the financing agreement and our review of the relationship between the city as obligor and its various issuers.

We rate the city's Health And Hospital Corp.'s (H&H) health system bonds based on the city's moral obligation pledge, although a pledge of health care reimbursement revenues also secures the bonds. We based the rating on the city's relationship with H&H, including its continued funding support, the pledge of H&H's health care reimbursement revenues, and local support of the entity as a major service provider to its Medicaid population and medically underserved areas. We rate the bonds two notches below the city's general creditworthiness.

We rate the HYIC's fiscal 2012 series A first indenture senior revenue bonds one notch below, and the second indenture revenue bonds two notches below, the City of New York's general creditworthiness, based on our view of the relationship with the city, with differentiation of the rating explained by our view of the reliability of revenues pledged. For additional information on HYIC debt, please see the full analysis published Dec. 19, 2019.

The 'AA' GO rating reflects our view of New York City's:

- Strong economy, as the city serves as the core of the largest metropolitan statistical area (MSA) in the country and with a metro gross domestic product that exceeds all but three states;
- Very strong management, with strong financial policies and practices under our Financial Management Assessment (FMA) methodology supporting a history of conservative budgeting and overseen by various state and local fiscal monitors;
- Strong budgetary performance, with break-even operating results in the general fund and at the total governmental fund level in fiscal 2018 and a balanced budget on a generally accepted accounting principles basis in fiscal 2019;
- Strong budgetary flexibility, with available reserves in fiscal 2018 of 10.7% of operating expenditures, a figure that has grown in each of the past five years;
- Very strong liquidity, with total government available cash at 13.6% of total governmental fund expenditures and 122.0% of governmental debt service, figures that are historically significant, albeit slightly lower than in fiscal 2014 year-end, and access to external liquidity we consider exceptional based on a variety of levers by which to issue access the capital markets;
- Very weak debt and contingent liability profile, with debt service carrying charges at 11.2% of expenditures and net direct debt that is 84.6% of total governmental fund revenue, as well as a large pension and other postemployment benefit (OPEB) obligations which exceeds $146 billion in net liability on a combined basis, and the lack of a plan to sufficiently address the OPEB obligation; and
- Very strong institutional framework score.

Outlook

The stable outlook reflects what we view as New York City's deep and diverse economy and status as the nation's largest employment center. Strong and tested financial management policies and practices further support the rating. We believe these factors, together with the city's very strong liquidity position--but offset by New York City's very weak debt and contingent liability profile--will be stable during the two-year outlook horizon.

Upside scenario

If the economy outperforms expectations in the long term supporting stronger financial performance through improved revenues while management continues to deal with higher-than-inflation expense growth and addresses needed infrastructure improvements without unduly increasing the debt profile, we could raise the rating. However, given the city's high debt position and large pension and OPEB liability, it is unlikely that this would happen over the two-year outlook horizon.

Downside scenario

In our view, New York City's projected budget gaps over the outlook period are manageable relative to historically projected gaps if favorable economic conditions continue. However, should economic conditions deteriorate significantly, we believe the city could face problems adjusting its budget to maintain a stable financial position, given its high fixed cost structure. An ongoing period of structural misalignment could result in weakened financial flexibility and performance and lead to a lower rating.

Strong Economy

The city's economy continues to experience healthy growth across a variety of indicators, including population, market valuation, and private employment, aggregate income, and gross domestic product, supporting our view of New York's economy as strong. The city, with an estimated population of 8.6 million, contains Bronx, Queens, Kings, Richmond and New York counties in the New York-Newark-Jersey City, NY-NJ-PA MSA, which we consider to be broad and diverse. The city has a projected per capita effective buying income of 106.1% of the national level and per capita market value of approximately $145,000. Overall, the city's market value grew by 11% over the past year to $1.25 trillion in 2019.

The most significant recent announcement for the local economy came in the form of Amazon's selection, and subsequent withdrawal, of Long Island City as one of two second headquarters. We believe the city is able to manage this decision without a significant impact on our view of the local economy (see "Amazon’s Withdrawal From New York City Deal Is Likely Uneventful To Local Economy," published Feb. 14, 2019); however, we will continue to monitor the city's diversification away from the securities industry, which makes up approximately one-fifth of total wages.

Market value has experienced strong growth in recent years averaging nearly 9% annual growth since fiscal 2015. Full valuation now exceeds $1.25 trillion. Regarding commercial and residential development, the redevelopment of Hudson Yards is designed to allow for the expansion of the Midtown central business district (CBD), as well as for the realization of the development potential of Manhattan's Far West Side. In our opinion, the project area benefits from its location adjacent to the city's strong Midtown CBD, which will likely continue to support commercial and residential development over time. The city does face a lawsuit regarding its property tax system and the tax burden on certain segments of its residential market. The mayor has appointed a working group to review the city's property tax system and while we anticipate future recommendations are likely to be revenue neutral, an express goal of the working group, there may be some fluctuation in related market valuation as a result of any applied solutions.

New York City is the engine for the Mid-Atlantic region and the largest economic and population center in the country. Its major employment sectors are trade, financial services, professional services, education, health care, and government. Despite recent economic diversification, there is still a higher-than-average reliance on the financial sector; in 2017, financial activities accounted for about 11% of employment, while the earnings share was approximately 27%. In the nation, financial activities accounted for only about 5.8% of employment and 9.7% of earnings in 2017. As of December 2018, the unemployment rate in the city was 3.9%, compared with 4.0% in December 2017, based on data from the New York State Department of Labor. New York City's average annual unemployment rate fell to 4.1% in calendar year 2018, the lowest on record, and the city expects this downward trend to continue, albeit at a slower pace.

Since the passage of the Tax Cuts and Jobs Act of 2017 (TCJA), the city has taken a wait-and-see approach to adjusting projections; however, the new financial plan does incorporate the direct impacts of TCJA, including lowering of corporate and personal income tax rates and limits on deductibility of state and local taxes and mortgage interest. We believe there does seem to be an emerging effect on economic activity in the region from these changes; however, economic and demographic shifts will likely remain gradual. We expect the city's strong management team will adjust to these potential effects should they occur over the long term. New York City receives significant funding from the federal government and the TCJA and other federal actions, including recent action on tariffs, could affect the state budget and economy, which in turn could affect the city.

Very Strong Management

We view the city's management as very strong, with strong financial policies and practices under our FMA methodology, indicating financial practices are strong and well embedded with a history of successful monitoring and oversight since the Financial Emergency Act. Additional monitoring and oversight of Office of Management and Budget projections are provided by the state and city comptrollers, Independent Budget Office, and the Financial Control Board, as well as privately funded fiscal watchdogs.

New York City prepares its budget and four-year financial plan with what we view as conservative revenue and expenditure projections that are based on historical data and incorporate information from outside resources, including private economists and economic forecasting services. The financial plan is updated in November, January, April, and upon adoption in June. Monthly financial plan statements and cash flows identify major variances from the financial plan.

The city publicly reports on cash balances and investments at least quarterly, and generally more often, and has a formal investment policy. Its three-tiered capital planning process is comprehensive and regularly updated with funding sources identified, and its ability to issue debt is limited by both the Financial Emergency Act and the New York State Constitution.

Finally, we note the city is particularly engaged with international and national risks to its economic and financial position, given its role as an international center of business, and therefore, consistently reviews its exposure to cybersecurity risks, climate change risks, and state and federal regulatory risks, and incorporates these concerns into its management and planning. The mayor established the New York City Cyber Command, which, in conjunction with the Department of Information technology and telecommunications, collaborates with city agencies, and state and federal law enforcement agencies, including the NYPD and FBI, for the purposes of coordinating the city's cyber defense system.

In addition, the New York City Panel on Climate Change (NPCC) has provided climate change projections that the city incorporates into its resiliency planning, with an updated report expected to be released in the first half of 2019. Progress on these reports is provided at a high level annually. The city's 10-year capital plan includes projects of $20 billion for resiliency, much of which is a response to the effects of Superstorm Sandy and areas of exposure identified by the storm. Storm surge and flood remain a significant risk, given the exposure of New York's downtown CBD, and the NPCC report also identifies extreme heat and intense rainfall as risks. The city is working with the Federal Emergency Management Agency to update its 100-year flood insurance rate maps; significant changes to these maps could affect property values and federal recovery support in the case of an extreme weather event. The city continues to monitor state and federal fiscal and economic policy proposals and their impact on the city and we do not foresee current proposals as significantly affecting its ability to manage its financial profile over the near term, particularly given the recent agreement to fund the federal government. Our view considers the potential for the state to unilaterally cut local assistance payments 3% in the case of a drop of federal aid receipts of $850 million or a decline in state tax receipts of over $500 million.

Strong Budgetary Performance

New York's budgetary performance is strong in our opinion. The city had break-even operating results in the general fund and across all governmental funds in fiscal 2018. General fund operating results of the city have been stable over the past three years, with slight surplus accumulation over that period. The city adopted its fiscal 2019 budget on June 14, 2018, performed its budget modification in November 2018, and released its preliminary 2020 budget on Feb. 7, 2019. The preliminary budget anticipates some use of the city's built-in expense contingency in the form of its general and capital stabilization reserves, and a reduction in its budget stabilization reserve; however, we expect the projected budget stabilization reserve amount to increase before the adopted budget, a regular occurrence in recent years given the city's conservative budgeting assumptions and installation of midyear savings initiatives.

Table 1

New York City -- Historical Financial Data			
Audited GAAP basis			
	--Fiscal year-end June 30--		
(Mil. $ unless otherwise noted)	**2018**	**2017**	**2016**
General fund revenues	87,479.6	83,029.7	79,399.5
General fund expenditures	(80,701)	(77,027.9)	(73,700.7)
Net transfers & other adjustments	(6,773.5)	(5,996.6)	(5,693.6)
Net general fund operating surplus	5.1	5.2	5.2
Prepayments (surplus roll)	4,576.0	4,169.0	3,994.0
Other available reserves (RHBT)	4,465.9	4,253.9	4,036.3
% of expenditures	10.7	10.6	10.1

The November budget modification included a significant expense change from adoption, which continues to be reflected in preliminary 2020 budget documents, for settlements of two of its largest union contracts and pattern application to the entire workforce. The settlements, covering District Council 37 (DC-37) and the United Federation of

Teachers, which make up about 61% of employees, will run through May of fiscal 2021 and September of fiscal 2023, respectively. Wage increases, which are approximately 2% for year 1 of the contracts, 2.25% in year 2, and 3% in year 3, are expected to set a pattern for remaining contracts, though we note uniforms have experienced moderate differences from civilian contracts. The city's most recent financial projections through 2023, including the preliminary budget for 2020, include an update to its labor reserve based on this pattern applied to all contracts, net of health care savings to be agreed on with the Municipal Labor Committee, which are enforceable through binding arbitration.

Other midyear modifications to the five-year financial plan presented to the Financial Control Board as part of the 2020 preliminary budget include funds for the NYC Care program to H&H and for the "Fair Fares" program. New York City, like many jurisdictions that rely on income tax, experienced a year-over-year drop in fiscal 2019; however, the city's budget is less affected by the drop, given the city's budgeted decline in income taxes for 2019. On net, tax revenues and nontax revenues are both projected to end the year higher than budgeted, while agency expense changes are higher than budgeted, which when combined with increased labor costs, prompted the first PEG under the current administration. The PEG calls for savings across agencies that are as yet unidentified, but should be included as part of the executive budget in April. The "Citywide Savings Plan" is also expected to continue and generate savings of $750 million, though we note a significant portion of this amount is based on a back payment to the city by H&H. Finally, the city anticipates using $825 million of its contingency general reserve and all $250 million of its capital stabilization reserve in 2019. These changes may make it more difficult to regenerate the level of prepayments made toward 2020, which we view as available reserves; however, we note current projected prepayments are slightly higher in the 2020 preliminary budget than in the 2019 preliminary budget and the city has generally seen this figure increase as it gets closer to adopting its budget. Some risks in the 2020 budget include additional pension costs associated with a calculation error and the acceptance of some draft recommendations by the city actuary that will increase required contributions above the contingency reserve of $100 million annually for pensions in 2020; proposed state budget changes related to state aid and mandates that would increase to the city by over $560 million; and future increases in the charter school per-pupil tuition rate, which could cost more than $100 million in fiscal 2020. We do note additional midyear spending associated with new initiatives is muted in comparison with spending in prior years.

Table 2

New York City -- Projected Financial Data: 2020 Preliminary Budget

All funds

	--Fiscal year-end June 30--				
(Mil. $)	**2023**	**2022**	**2021**	**2020**	**2019**
Operating revenues	98,819.0	96,829.0	94,301.0	92,210.0	92,019.0
Operating expenditures excl. reserve line items	102,115.0	99,768.0	97,817.0	92,210.0	92,019.0
General fund operating gap	(3,296)	(2,939)	(3,516)	0.0	0.0
Capital stabilization and general reserve	1,250.0	1,250.0	1,250.0	1,250.0	300.0
General fund operating surplus (gap) net of contingency reserves	(2,046)	(1,689)	(2,266)	1,250.0	300.0

Property taxes are the largest source of revenues at just under 31%, with state aid at about 16.7% of revenues and personal income taxes making up about 14% of budgeted revenues. Sales taxes and federal aid round out the five largest sources of revenues. The city maintains what we believe are conservative projections for revenue growth over the financial plan. Salaries and wages make up about a third of expenses, while pension and OPEB make up nearly another quarter of expenses, in fiscal 2019. We believe the city's outyear gaps, which are not expected to exceed 4% of expenditures through fiscal 2023 net of contingency reserve, are manageable and likely to be closed through better-than-budgeted revenues and some expenditure savings, likely supported by lower-than-budgeted debt servicing costs and inclusive of contingency reserve use.

Contingent risks to the budget remain from continued or expanded assistance for H&H, the New York City Housing Authority (NYCHA), and the Metropolitan Transportation Authority (MTA), each of which have required additional support from the city over the past decade. The city expects support for H&H to remain stable in the near term, inclusive of support for NYC Care, a program to provide access to H&H facilities for all New Yorkers, which will steadily increase the city's subsidy for the program to $100 million in fiscal 2022 and which would bring combined support over $1.9 billion, prior to potential savings or revenue generation associated with the program. We believe anticipated support projections are reasonable in the near term, given improving liquidity at the agency, evidenced by a recent repayment of payables outstanding to the city. At NYCHA, New York City and the federal government agreed on Jan. 31, 2019 to the city making a capital commitment of $2.2 billion over 10 years, with $1.2 billion to be included in the city's five-year plan; the agreement will install a federal monitor to oversee conditions at its facilities. NYCHA has found it has repair costs outstanding of about $32 billion. Finally, the preliminary budget does not include any new obligation to support MTA operations, which would be the first additional support since the release of its Subway Action Plan; however, we have noted that continued transit infrastructure needs could result in an additional burden on city residents to manage associated costs. To this point, the mayor recently announced a 10-point plan with the governor to fund MTA capital initiatives, with a portion of proposed internet sales taxes due to the city and congestion pricing within Manhattan cited as two sources of potential revenue. The final financing plan could require new spending on behalf of the city or an additional burden on residents in the form of charges or taxes.

Strong Budgetary Flexibility

New York's budgetary flexibility is strong, in our view, with an available fund balance in fiscal 2018 of 10.7% of operating expenditures, or $9.3 billion.

The Financial Emergency Act limits the city's ability to maintain reserves from current-year revenue, translating into zero dollars in the available general fund balance at fiscal year-end. In response, New York City has historically used surplus to prepay subsequent-year expenditures (primarily debt service). We view these prepayments as a form of reserve balance and a source of budgetary flexibility, and adjust our reserve calculation accordingly. The city also funds a discretionary reserve for retirees' health insurance costs, and we view this amount as available for operations, if necessary, based on historical use of these funds in previous years. Combined, the fiscal 2018 unrestricted budget stabilization contribution and prepayments ($4.58 billion) and the reserve for retirees' health insurance costs ($4.77 billion, which includes a $300 million prepayment in fiscal 2019) represented 10.7% of adjusted general fund expenditures. The city's general and capital stabilization reserves also provides some flexibility to manage midyear adjustments; however, current outyear gaps exceed contingency reserves in those years.

We note the current anticipated prepayment for 2020 is projected to be lower than in past years, but is higher than the preliminary prepayment in the preliminary 2019 budget, which increased significantly in the adopted budget. We expect this trend to continue in the current year; we also note that even if the prepayment does not fully approach adopted 2019 levels, we expect reserves to remain at least at 8% of expenditures through the outlook period.

Very Strong Liquidity

In our opinion, New York's liquidity is very strong, with total government available cash at 13.6% of total governmental fund expenditures and 122.0% of governmental debt service in 2018. In our view, the city has exceptional access to external liquidity if necessary.

The average cash balance for fiscal 2018 stood at about $7.5 billion, which we consider high. Furthermore, the city has a cash forecasting system that predicts its daily cash balances. The last quarterly cash report issued by the city comptroller notes the ending first-quarter balance (Sept. 30, 2018) was $8.32 billion, an increase of nearly 21% year over year. The city has not issued short-term obligations to finance projected cash flow needs since fiscal 2004. In addition, it regularly reviews its cash position and the need for short-term borrowing. The financial plan does not reflect expected issuance of short-term obligations. We do not expect recent contract agreements to materially affect our view of the city's cash balances, and the city's cash projections through the end of the calendar year did cover the DC-37 agreement without assuming a significant impact on year-over-year levels.

The city's net direct debt, including state-supported debt issued by the Transitional Finance Authority (TFA), includes about 12% of variable-rate debt, or just above $10.9 billion. The maximum allowable rate on the city's variable-rate debt is 25%. We believe the city's debt management team proactively manages this portion of the portfolio to alleviate interest rate and counterparty risk. As part of this management, the city will from time to time hedge a portion of its variable-rate debt through interest rate exchange agreements. As of Dec. 31, 2018, New York City's total notional amount of interest rate exchange agreements was about $1.10 billion, about 10% of its variable-rate portfolio, with a total marked-to-market value of negative $55.2 million. In addition, DASNY entered into an interest rate agreement for the city's court facilities revenue bonds series 2005A and B with a notional amount of $125.5 million, with a marked-to-market value of approximately negative $22.5 million. The city's largest counterparty is JPMorgan Chase Bank followed by Wells Fargo. We do not view these agreements as posing a significant liquidity risk and note that there are no restrictive covenants in the interest rate exchange agreements.

Very Weak Debt And Contingent Liability Profile

In our view, New York's debt and contingent liability profile is very weak. Total governmental fund debt service is 11.2% of total governmental fund expenditures, and net direct debt is 84.6% of total governmental fund revenue. Our calculation of debt service includes nearly $1.15 billion in lease payments, approximately $570 million in state aid-supported Building Aid Revenue Bond (BARB) debt service, and $170 million in state aid-supported Sales Tax Asset Receivable Corp. (STARC) debt service. We consider BARB and STARC bonds to be state-supported and secured by state building aid payable to the city and state sales tax revenues from New York Local Assistance Corp., respectively; therefore, we exclude these amounts from our net direct debt calculation.

The city released its preliminary 10-year capital strategy with the preliminary budget, which it expects will exceed $104 billion, with the largest commitments for schools (22%), water and sewer infrastructure (19%), and transportation infrastructure (15%); we note commitments for climate change and severe weather resilience infrastructure approximate 20% of planned 10-year capital spending. Initial projections of debt service under the plan through 2029 are not expected to broach 15% of operating revenues. New York City functions as a combined city, county, and school district, which results in a relatively larger debt profile when compared with that of other large cities. Because of this unique profile, overlapping debt is limited to debt outstanding associated with the Hudson Yards Infrastructure Corp. The city's financing program projects an estimated $14.3 billion of GO and TFA-future tax-secured bonds to be issued in fiscal years 2019 and 2020, with more than half this amount amortized over the same period, and our analysis considers that. About $825 million of New York City's GO debt and $821 million of TFA debt is in private placements with a number of financial institutions; however, we believe there are no risks of acceleration associated with provisions or restrictive covenants in the loan documents.

Table 3

New York City --Projected Carrying Charges Associated With Long-Term Liabilities And Total Revenues

	--Fiscal year-end June 30--				
(Mil. $)	**2019**	**2020**	**2021**	**2022**	**2023**
Fringe benefits	10,643.0	11,536.0	12,028.0	12,705.0	13,385.0
Pensions	9,850.0	9,951.0	10,418.0	10,864.0	11,070.0
Debt service	6,737.0	7,345.0	7,658.0	8,337.0	9,086.0
Total revenues	92,019.0	92,210.0	94,301.0	96,829.0	98,819.0

In our opinion, a credit weakness is New York's large pension and OPEB obligation, without a plan in place that we think will sufficiently address the OPEB obligation. New York's combined required pension and actual OPEB contributions totaled 13.5% of total governmental fund expenditures in 2018. Of that amount, 10.8% represented required contributions to pension obligations, and 2.7% represented OPEB payments. The city made its full annual required pension contribution in 2018.

New York City has paid its full legally required pension contribution, defined to be the actuarially determined contribution with a one-year lag, for many years and we anticipate it will keep doing so. If the city were to continue to make funding contributions at expected levels and all actuarial assumptions are met, the unfunded liability will be paid off by 2034. The actuarial assumptions used in calculating the pension and OPEB contribution recommendations appear to be up-to-date and conservative. While adverse experience is always possible, we do not expect any large increases to the actuarial recommendation in the near future, which is expected to reach $11.07 billion in fiscal 2023, or nearly 11% of expenditures in that year. The city's primary pension plans, listed below, are managed by external managers and have generally seen healthy gains in recent years supporting stronger funded ratios across funds.

Plan fiduciary net positions as a percentage of the total pension liability for its primary plans were:

- New York City Employees' Retirement System ($45.6 billion total pension liability, 78.3% funded)
- Teachers' Retirement System (TRS) of the City of New York ($71.2 billion, 74.4% funded)
- New York City Board of Education Retirement System ($5.2 billion, 90.4% funded)

- New York City Police Pension Fund ($54.2 billion,79% funded)
- New York City Firefighters Pension Fund ($22 billion, 64.5% funded

Collectively, the plans have a $198.2 billion pension liability (75.9% funded), while the TRS has the largest single liability at $71.2 billion (74.4% funded). Unaudited figures from the New York City Comptroller's Office estimate the rate of return across the city's pension systems was 8.7% in fiscal 2018.

New York City provides health insurance and other related benefits to eligible municipal retirees, including health insurance for retirees with 10 years of service, with no premium contribution, which is unique among large cities in the country. New York City implemented GASB Statements No. 74, 75, 80, and 82 for fiscal year-end 2017, ahead of the required schedule. As of June 30, 2018, the net OPEB liability (NOL) stood at $98.5 billion. NOL as a percent of covered employee payroll has remained over 350% in each of the past three years and is likely to continue to do so barring significant changes to OPEB assumptions. The fiscal 2018 valuation assumed a discount rate of 3.01% per year. The city's retiree health benefits trust, the only trust of its nature in the state, provides funds for the payment of OPEB; however, given the use of these assets in the past, we view these as available reserves rather than assets set aside for the express purpose of managing OPEB.

Very Strong Institutional Framework

The institutional framework score for New York City is very strong.

Related Research

2018 Update Of Institutional Framework For U.S. Local Governments

Ratings Detail (As Of March 1, 2019)		
New York City go bnds fiscal 2004 adj rate subser A-5 dtd 07/14/2003 due 08/01/2031		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City go bnds fiscal 2004 subser A-4		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO adj rate		
Long Term Rating	AAA/A-1+	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO bnds		
Long Term Rating	AA/Stable	Affirmed
New York City GO bnds		
Long Term Rating	AA/Stable	Affirmed
New York City GO bnds		
Long Term Rating	AA/Stable	Affirmed

Ratings Detail (As Of March 1, 2019) (cont.)		
New York City GO bnds		
Long Term Rating	AA/Stable	Affirmed
New York City GO bnds fiscal (Adj Rte Bnds) ser 2018B-5 due 10/01/2046		
Long Term Rating	AA/A-1/Stable	Affirmed
New York City GO bnds fiscal (Tax-exempt) 2018 ser E-1 due 03/01/2045		
Long Term Rating	AA/Stable	Affirmed
New York City GO bnds fiscal 2005 ser M dtd 04/28/2005 due 04/01/2007-2026 2030 2035		
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO bnds fiscal 2005 (tax-exempt & taxable) ser O P Q dtd 06/02/2005 due 06/01/2007-2016 2019-2025 2027 2030 2033 2035 & 08/01/2005-2025		
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO bnds ser 2016 C due 08/01/2035		
Long Term Rating	AA/Stable	Affirmed
New York City GO bnds ser 2016 D due 08/01/2035		
Long Term Rating	AA/Stable	Affirmed
New York City GO bnds subseries 2014 I-1		
Long Term Rating	AA/Stable	Affirmed
New York City GO bnds subser J-8 ser 2008 J dtd 04/01/2008 rmktd 03/19/2013 due 08/01/2021		
Long Term Rating	AA/A-1/Stable	Affirmed
New York City GO bnds tax-exempt ser fiscal 1997 Ser E&F dtd 11/21/1996 due 08/01/2000-2013 2016 2024 2026		
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO bnds Fiscal (Adjusted Rate Bnds) ser 2018 E-5 dtd 03/13/2018 due 03/01/2048		
Long Term Rating	AAA/A-1+	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO bnds fisal rmkt 10/17/2017 ser 2012D-3A due 10/01/2039		
Long Term Rating	AA/A-1+/Stable	Affirmed
New York City GO bnds (Adjusted Rt Bnds)		
Long Term Rating	AA/A-1/Stable	Affirmed
New York City GO bnds, fiscal 2015 series F Subser F-6 due 06/01/2044		
Long Term Rating	AA/A-1/Stable	Affirmed
New York City GO bnds, fiscal 2015 F Subser F-5 due 06/01/2044		
Long Term Rating	AA/A-1/Stable	Affirmed
New York City GO fiscal (Taxable Bnds) 2018 ser E-2 due 03/01/2028		
Long Term Rating	AA/Stable	Affirmed
New York City GO fiscal (Taxable Bnds) 2018 ser E-3 due 03/15/2030		
Long Term Rating	AA/Stable	Affirmed
New York City GO var adj rate bnds Fiscal 2017 ser A-5 due 08/01/2044		
Long Term Rating	AA/A-1/Stable	Affirmed
New York City GO var adj rate bnds Fiscal 2017 ser A-4 due 08/01/2044		
Long Term Rating	AA+/A-1	Affirmed

Ratings Detail (As Of March 1, 2019) (cont.)		
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO var adj rate bnds Fiscal 2017 ser A-6 due 08/01/2044		
Long Term Rating	AA/A-1/Stable	Affirmed
New York City GO var adj rate bnds Fiscal 2017 ser A-7 due 08/01/2044		
Long Term Rating	AA/A-2	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO var rate dem bnds		
Long Term Rating	AAA/A-1+	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO Bnds fiscal (Adj Rte Bnds) ser 2018 B-4 due 10/01/2046		
Long Term Rating	AA/A-1/Stable	Affirmed
New York City GO VRDB fiscal 2006 subser I-6		
Long Term Rating	AAA/A-1+	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO (ASSURED GTY) (SEC MKT)		
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO (BAM) (SEC MKT)		
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO (Fiscal 1996) Subser J-1 (AGM)		
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO (MBIA) (National)		
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO		
Long Term Rating	AA/Stable	Affirmed
New York City GO		
Long Term Rating	AA/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
New York City GO		
Long Term Rating	AA/A-1/Stable	Affirmed
New York City GO		
Long Term Rating	AAA/A-1+	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO		
Long Term Rating	AA/A-1/Stable	Affirmed
New York City GO		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO		
Long Term Rating	AA/A-1/Stable	Affirmed
New York City GO		
Long Term Rating	AA/A-1/Stable	Affirmed

Ratings Detail (As Of March 1, 2019) (cont.)		
New York City GO		
Long Term Rating	AA/A-1/Stable	Affirmed
New York City GO		
Long Term Rating	AA/A-1/Stable	Affirmed
New York City GO		
Long Term Rating	AA/Stable	Affirmed
Unenhanced Rating	NR(SPUR)	
New York City GO		
Long Term Rating	AA/Stable	Affirmed
New York City GO		
Long Term Rating	AA/A-1/Stable	Affirmed
New York City GO		
Long Term Rating	AA/Stable	Affirmed
New York City GO		
Long Term Rating	AA/Stable	Affirmed
New York City GO		
Long Term Rating	AA/A-1/Stable	Affirmed
New York City GO		
Long Term Rating	AA/Stable	Affirmed
New York City GO		
Long Term Rating	AA/Stable	Affirmed
New York City GO		
Long Term Rating	AA/Stable	Affirmed
New York City GO		
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO		
Long Term Rating	AA/Stable	Affirmed
New York City GO		
Long Term Rating	AA/Stable	Affirmed
New York City GO		
Long Term Rating	AA/Stable	Affirmed
New York City GO		
Long Term Rating	AA/Stable	Affirmed
New York City GO		
Long Term Rating	AA/Stable	Affirmed
New York City GO		
Long Term Rating	AA/Stable	Affirmed
New York City GO		
Long Term Rating	AA/Stable	Affirmed

Ratings Detail (As Of March 1, 2019) (cont.)		
New York City JOINTCRIT		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City JOINTCRIT		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City JOINTCRIT		
Long Term Rating	AAA/A-1+	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City JOINTCRIT		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City JOINTCRIT		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City JOINTCRIT		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City JOINTCRIT		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City JOINTCRIT		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City JOINTCRIT		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City JOINTCRIT		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City JOINTCRIT		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City JOINTCRIT		
Long Term Rating	AAA/A-1+	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City JOINTCRIT		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City rev bnds ser 2012 A-4		
Unenhanced Rating	AA(SPUR)/Stable	Affirmed

Ratings Detail (As Of March 1, 2019) (cont.)		
Long Term Rating	AA+/A-1	Affirmed
New York City GO		
Unenhanced Rating	NR(SPUR)	
New York City GO adj rate		
Unenhanced Rating	AA(SPUR)/Stable	Affirmed
New York City GO VRDB subser J-5 ser 2008J		
Long Term Rating	AA/A-1/Stable	Affirmed
Dorm Auth of the St of New York, New York		
New York City, New York		
Dorm Auth of the St of New York (New York City) lse rev bnds (Mun Hlth Fac Imp Prog)		
Long Term Rating	AA-/Stable	Affirmed
New York State Dorm Auth (New York City) court fac		
Long Term Rating	AA-/NR	Affirmed
Unenhanced Rating	AA-(SPUR)/Stable	Affirmed
New York State Dorm Auth (New York City) lse rev bnds (Mun Hlth Facs Imp Prog)		
Long Term Rating	AA-/Stable	Affirmed
New York State Dorm Auth (New York City) mun hlth		
Long Term Rating	AA-/Stable	Affirmed
New York St Dorm Auth (New York City) court facs lse (The City Of New York Issue) (wrap of insured) (AMBAC & BHAC) (SEC MKT)		
Unenhanced Rating	AA-(SPUR)/Stable	Affirmed
DASNY (New York City) (Court Fac Prog)		
Long Term Rating	AA-/Stable	Affirmed
New York St Dorm Auth (NYC) court fac ser 1999 & 2005		
Unenhanced Rating	AA-(SPUR)/Stable	Affirmed
Hudson Yards Infrastructure Corp., New York		
New York City, New York		
Hudson Yards Infrastructure Corp (New York City) Hudson Yards sr rev (AGM)		
Unenhanced Rating	AA-(SPUR)/Stable	Affirmed
Hudson Yards Infrastructure Corp. sec ind rev bnds Fiscal (New York City) (Tax Exempt)		
Long Term Rating	A+/Stable	Affirmed
Hudson Yards Infrastructure Corp. (New York City) secd ind rev bnds Fiscal (New York City) (Tax Exempt) ser 2017 A due 02/15/2047		
Long Term Rating	A+/Stable	Affirmed
Hudson Yards Infrastructure Corp. (New York City) (AGM) (SEC MKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
New York City Educl Const Fd, New York		
New York City, New York		
New York City Educl Const Fd (New York City)		
Long Term Rating	AA-/Stable	Affirmed
New York City Educl Const Fd (New York City) rev bnds		

Ratings Detail (As Of March 1, 2019) (cont.)		
Long Term Rating	AA-/Stable	Affirmed
New York City Educl Const Fd (New York City) APPROP		
Long Term Rating	AA-/Stable	Affirmed
New York City Hlth & Hosp Corp, New York		
New York City, New York		
New York City Health & Hospital Corporation (New York City) hlth sys - 2008B		
Long Term Rating	AA+/A-1+	Affirmed
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
New York City Health & Hospital Corporation (New York City) hlth sys - 2008C		
Long Term Rating	AA+/A-1+	Affirmed
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
New York City Health & Hospital Corporation (New York City) hlth sys - 2008D		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
New York City Health & Hospital Corporation (New York City) hlth sys - 2008E		
Long Term Rating	AA+/A-1	Affirmed
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
New York City Hlth & Hosp Corp (New York City) hlth sys		
Long Term Rating	A+/Stable	Affirmed
New York City Hlth & Hosp Corp (New York City) hlth sys (AGM) (SEC MKT)		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
New York City Hlth & Hosp Corp (New York City) GO rev bnds		
Long Term Rating	A+/Stable	Affirmed
New York City Hlth & Hosp Corp (New York City) hlth sys bnds & var rate		
Unenhanced Rating	A+(SPUR)/Stable	Affirmed
New York City Indl Dev Agy, New York		
New York City, New York		
New York City Industrial Development Agency (NYC-New York Stock Exchange Proj)		
Long Term Rating	AA-/Stable	Affirmed

Many issues are enhanced by bond insurance.